

Perth's first public water supply scheme

Perth's first public water supply scheme was constructed at a time when the settlement still relied on a fragile system of private wells and rainwater tanks and a few public springs.

Increased population and unreliable rainfall caused water shortages. With water shortages, water borne diseases, mainly typhoid, became more prevalent with greater reliance on groundwater that was polluted by poor sanitation methods.

The first scheme was constructed under a 'build, own and operate' contract between the Perth City Council and a Melbourne based syndicate, Neil McNeil and Company, at a cost of about 160,000 pounds (\$21 million at 2011 prices).

It incorporated the 240 million gallons (1 billion litres) capacity Victoria Dam on Munday Brook in the hills at Carmel, 16.33 miles (26.3 kilometres) of 12-inch (305mm) diameter gravity trunk main to a 660,000 gallons (3 million litres) capacity reservoir at Mt Eliza in Kings Park and city reticulation with an eight-inch (200mm) main along Wellington Street.

Work began in October, 1889, and the storage reservoir of 42 acres (16.2 hectares) was cleared by manual labour, while concrete for the dam wall, with a crest length of 722 feet (220 metres) and a maximum height of 71 feet (22 metres) was mixed and put in place by 60 or more men at a time using shovels and hand rammers.

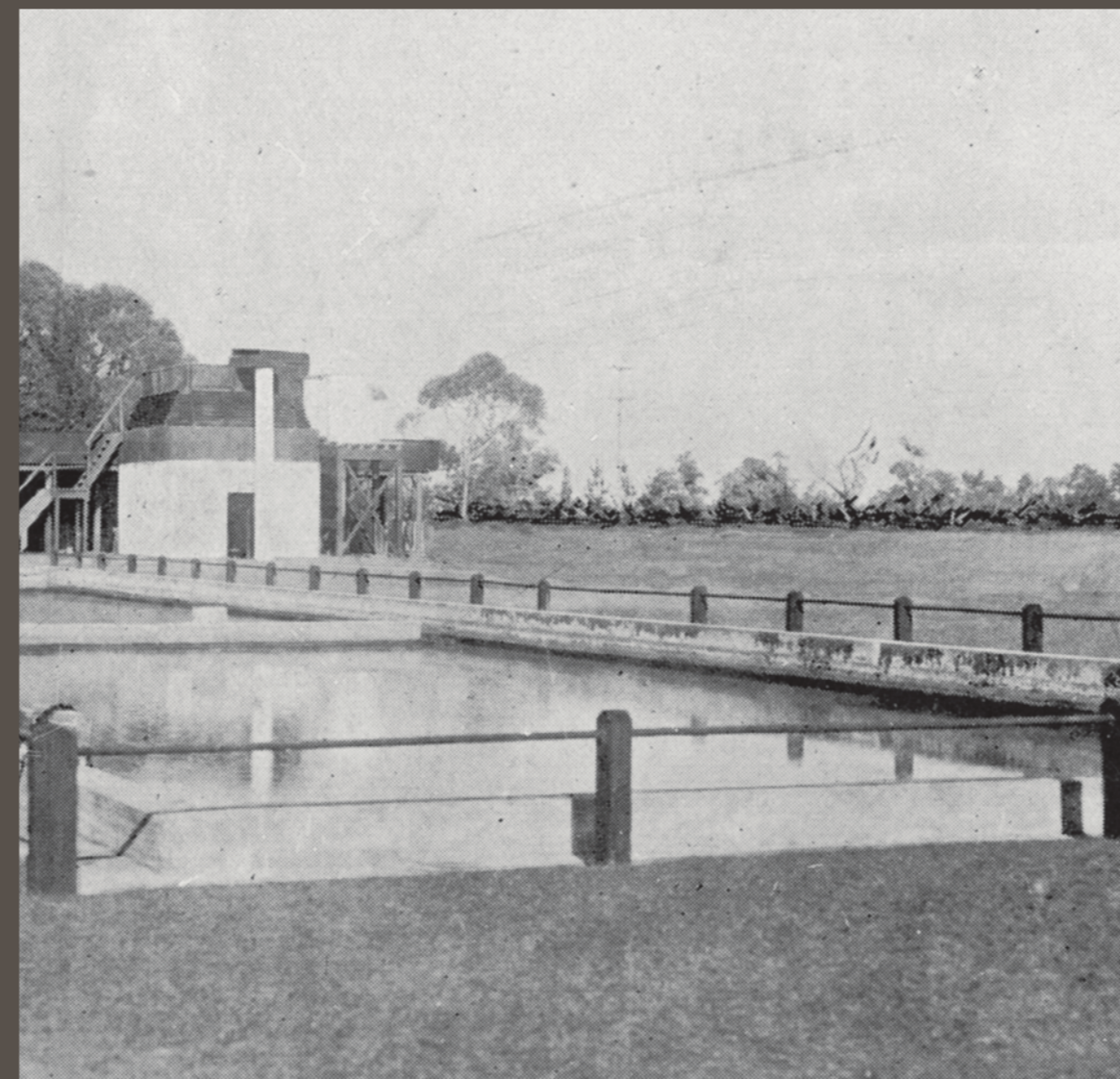


Mrs Lilla Keane, wife of Perth Lord Mayor Edward Keane, officially opens the "Perth waterworks" by turning on a valve at Victoria Dam, 1 October 1891.

The new scheme was officially opened on 1 October 1891, and operated by the newly established City of Perth Water Supply Company. Due to problems of water availability and contamination, the scheme was purchased by the recently proclaimed State Government in 1896 and control given to an independent Metropolitan Waterworks Board which made improvements.

In 1990 the wall of the original Victoria Dam was partly demolished to allow for overflows from a larger capacity dam built 300 metres upstream. The original Mt Eliza reservoir was demolished in the 1930s to make way for much larger storages over the years.

Apart from about two thirds of the original Victoria Dam wall that is still standing, virtually no other physical evidence remains of the first scheme. The Victoria scheme became the model for future "hills" schemes that made Perth the thriving city that it is today.



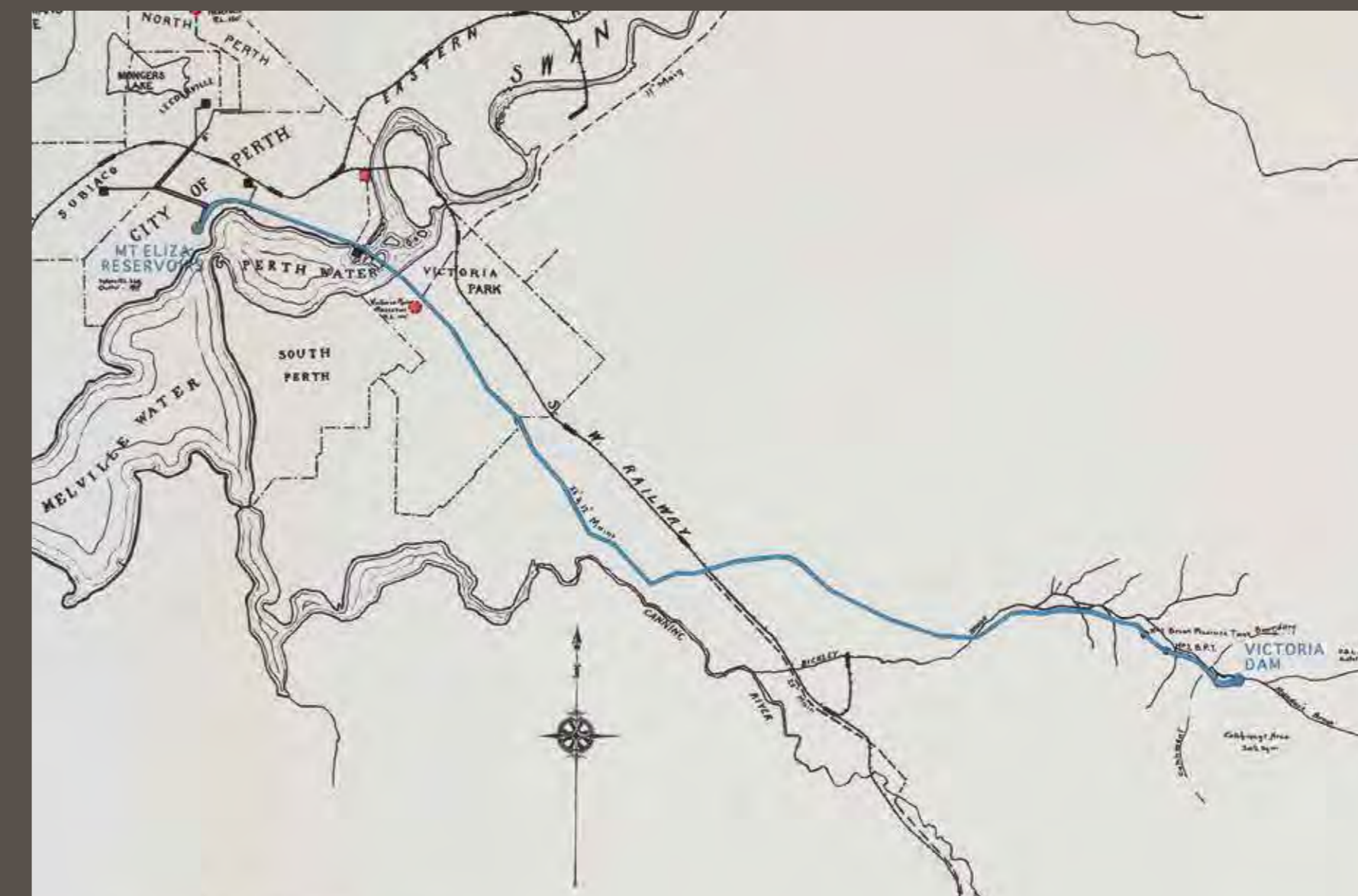
The original service reservoir, Mt Eliza, Kings Park.



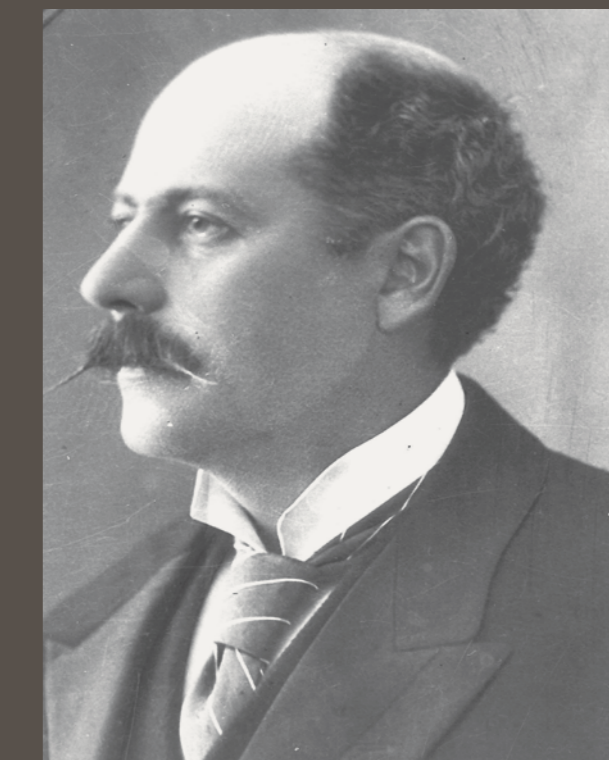
The original 12-inch main and subsequent 21-inch main pipelines from Victoria Dam cross the Swan River at the Causeway bridge.



Victoria Dam, completed 1891.



Drawing of pipeline route from Victoria Dam to Mt Eliza, pipeline shown in blue (Part of a 1903 Plan by M.S. & W.S. Plan number 299).



Henry Saunders

Perth's first public water supply scheme was designed by civil engineers Henry Saunders and James Barratt.

Saunders, who had worked on railway development, later became a mining entrepreneur and manager. He was a Perth City Councillor, and elected to terms as Mayor and MLC, then became a member of the first Federal Senate in 1903. He died in Perth in 1919.

Barratt also worked on railways, for a time as Chief Engineer for the Midland Railway Company, and later moved to Albany. He worked in Melbourne for 22 years but it is not known where or when he died.

The engineering significance of Perth's First Public Water Supply Scheme was recognised by the award of an Engineering Heritage Marker by Engineering Heritage Australia (the heritage arm of Engineers Australia) in October 2012.



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